

Please type a plus sign (+) inside this box →

+

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 4

Complete if Known

| | |
|------------------------|-------------------|
| Application Number | 10/047,078 |
| Filing Date | January 14, 2002 |
| First Named Inventor | CHISHTI, MUHAMMAD |
| Group Art Unit | Unassigned |
| Examiner Name | Unassigned |
| Attorney Docket Number | 018563-005110US |

U.S. PATENT DOCUMENTS

| Examiner Initials * | Cite No. ¹ | U.S. Patent Document | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|------------------------|--------------------------|----------------------|--------------------------------------|--|--|--|
| | | Number | Kind Code ² (if known) | | | |
| JWC | AA | 3,660,900 | | Andrews | 5/9/1972 | |
| | AB | 3,860,803 | | Levine | 1/14/1975 | |
| | AC | 4,504,225 | | Yoshii | 3/12/1985 | |
| | AD | 4,505,673 | | Yoshii | 3/19/1985 | |
| | AE | 4,755,139 | | Abbatte et al. | 7/5/1988 | |
| | AF | 4,798,534 | | Breads | 1/17/1989 | |
| | AG | 4,836,778 | | Baumrind et al. | 6/1989 | |
| | AH | 4,856,991 | | Breads et al. | 8/15/1989 | |
| | AI | 4,936,862 | | Walker et al. | 7/26/1990 | |
| | AJ | 5,011,405 | | Lemchen | 4/30/1991 | |
| | AK | 5,017,133 | | Miura | 5/21/1991 | |
| | AL | 5,035,613 | | Breads et al. | 7/30/1991 | |
| | AM | 5,055,039 | | Abbatte et al. | 10/8/1991 | |
| | AN | 5,059,118 | | Breads et al. | 10/22/1991 | |
| | AO | 5,139,419 | | Andreiko et al. | 8/18/1992 | |
| | AP | 5,186,623 | | Breads et al. | 2/16/1993 | |
| | AQ | 5,273,429 | | Rekow | 12/28/1993 | |
| | AR | 5,338,198 | | Wu et al. | 8/16/1994 | |
| | AS | 5,340,309 | | Robertson | 8/23/1994 | |
| | AT | 5,342,202 | | Deshayes | 8/30/1994 | |
| | AU | 5,368,478 | | Andreiko et al. | 11/29/1994 | |
| | AV | 5,382,164 | | Stern | 1/17/1995 | |
| | AW | 5,395,238 | | Andreiko et al. | 3/7/1995 | |
| | AX | 5,431,562 | | Andreiko et al. | 7/11/1995 | |
| | AY | 5,447,432 | | Andreiko et al. | 9/5/1995 | |
| | AZ | 5,452,219 | | Dehoff et al. | 9/19/1995 | |
| | BA | 5,454,717 | | Andreiko et al. | 10/3/1995 | |
| | BB | 5,456,600 | | Andreiko et al. | 10/10/1995 | |
| | BC | 5,474,448 | | Andreiko et al. | 12/12/1995 | |
| | BD | 5,533,895 | | Andreiko et al. | 7/9/1996 | |
| | BE | 5,542,842 | | Andreiko et al. | 8/6/1996 | |
| | BF | 5,549,476 | | Stern | 8/27/1996 | |
| | BG | 5,587,912 | | Andersson et al. | 12/24/1996 | |
| JWC | BH | 5,605,459 | | Kuroda et al. | 2/25/1997 | |

Examiner
Signature

John Wilson

Date
Considered

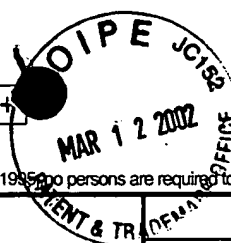
6/19/03

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.
PA 3199795 v1

Please type a plus sign (+) inside this box →



PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 4

Complete if Known

| | |
|------------------------|-------------------|
| Application Number | 10/047,078 |
| Filing Date | January 14, 2002 |
| First Named Inventor | CHISHTI, MUHAMMAD |
| Group Art Unit | Unassigned |
| Examiner Name | Unassigned |
| Attorney Docket Number | 018563-005110US |

U.S. PATENT DOCUMENTS

| Examiner Initials * | Cite No. ¹ | U.S. Patent Document | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|------------------------|--------------------------|----------------------|--------------------------------------|--|--|--|
| | | Number | Kind Code ² (if known) | | | |
| <i>JW</i> | BI | 5,607,305 | | Andersson et al. | 3/4/1997 | <i>cl. 2, 3, 5, 6</i> |
| <i>JW</i> | BJ | 5,645,421 | | Slootsky | 7/8/1997 | |
| <i>JW</i> | BK | 5,683,243 | | Andreiko et al. | 11/1997 | |

FOREIGN PATENT DOCUMENTS

| Examiner Initials * | Cite No. ¹ | Foreign Patent Document | | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ² |
|------------------------|--------------------------|-------------------------|---------------------|--------------------------------------|---|--|--|----------------|
| | | Office ³ | Number ⁴ | Kind Code ⁵ (if known) | | | | |
| <i>JW</i> | BL | France | 2 369 828 | | | 6/2/1978 | | |
| <i>JW</i> | BM | PCT | WO 94/10935 | | | 5/26/1994 | | |

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|------------------------|--------------------------|---|----------------|
| <i>JW</i> | BN | "DentSim . . . Dent-X's virtual reality 3-D training simulator . . . A revolution in dental education," downloaded from www.dent-x.com/DentSim.htm, 9/24/98, 6 pgs. | |
| | BO | Biostar Operation & Training Manual, Great Lakes Orthodontics, Ltd. 199 Fire Tower Drive, Tonawanda, New York, 14150-5890, 20 pgs. | |
| | BP | Chiappone, "constructing the gnathologic setup and positioner," J. Clin. Orthod., 1980, 14:121-133. | |
| | BQ | Cottingham, "Gnathologic clear plastic positioner," Am. J. Orthod. 1969, 55:23-31. | |
| | BR | Cureton, "Correcting malaligned mandibular incisors with removable retainers," J. Clin. Orthod. 1996, 30:390-395. | |
| | BS | Elsasser, "Some observations on the history and uses of the Kesling positioner," Am. J. Orthod. 1950, 36:368-374. | |
| | BT | Kamada et al., "Case reports on tooth positioners with LTV vinyl silicone rubber and some case reports," J. Nihon University School of Dentistry 1982, 24(1):1-27. | |
| <i>JW</i> | BU | Kamada et al., "Construction of Tooth Positioners with LTV Vinyl Silicone Rubber and Some Case Reports," J. Nihon University School of Dentistry 3/1982, 24(1):1-26. | |

Examiner
Signature

John Wilson

Date
Considered

6/19/03

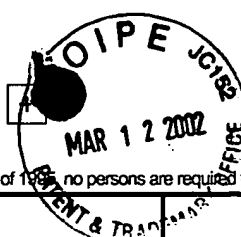
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231. PA 3199795 v1

RECEIVED
MAR 21 2002
3:00 MAIL ROOM

Please type a plus sign (+) inside this box →



PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 3 of 4

Complete if Known

| | |
|------------------------|-------------------|
| Application Number | 10/047,078 |
| Filing Date | January 14, 2002 |
| First Named Inventor | CHISHTI, MUHAMMAD |
| Group Art Unit | Unassigned |
| Examiner Name | Unassigned |
| Attorney Docket Number | 018563-005110US |

FOREIGN PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ² |
|-----------------------|--------------------------|-------------------------|---------------------|--------------------------------------|---|--|--|----------------|
| | | Office ³ | Number ⁴ | Kind Code ⁵ (if known) | | | | |
| <i>gzw</i> | BV | | | | Kesling, "Coordinating the predetermined pattern and tooth positioner with conventional treatment," Am. J. Orthod. Oral. Surg. 1946, 32:285-293. | | | |
| | BW | | | | Kesling, "The philosophy of the tooth positioning appliance," Am. J. Orthod. Oral. Surg. 1945, 31(6):297-304. | | | |
| | BX | | | | Kleeman et al., "The speed positioner," J. Clin. Orthod. 1996, 30:673-680. | | | |
| | BY | | | | Kunii et al., "Abstract: Articulation simulation for an intelligent dental care system," DISPLAYS, vol. 15, no. 1, 1994, 9 pgs. | | | |
| | BZ | | | | Kuroda et al., "Three-dimensional dental cast analyzing system using laser scanning," Am. J. Orthod. Dentofac. Orthop. 1996, 110:365-369. | | | |
| | CA | | | | Lawrence F. Andrews, D.D.S., "Straight Wire, The Concept and Appliance," The Six Keys to Optimal Occlusion, 15-24. | | | |
| | CB | | | | Lawrence F. Andrews, D.D.S., "The six to normal occlusion," Am. J. Orthod. 9/1972, 296-308. | | | |
| | CC | | | | Nippon Dental Review, "New orthodontic device-dynamic positioner (D.P.)-I Approach to the proposal of D.P. and transparent silicone rubber," 1980, 452:61-74. | | | |
| | CD | | | | Nippon Dental Review, "New orthodontic device-dynamic positioner (D.P.)-II, Practice application and construction of D.P. and transparent silicone rubber," 1980, 454:107-130. | | | |
| | CE | | | | Nippon Dental Review, "New orthodontic device-dynamic positioner (D.P.)-III, Case reports of reversed occlusion," 457:146-164. | | | |
| | CF | | | | Nippon Dental Review, "New orthodontic device-dynamic positioner (D.P.) - Case reports of reversed occlusion," 1980, 458:112-129. | | | |
| | CG | | | | Nishiyama et al., "A new construction of tooth repositioner by LTV vinyl silicone rubber," J. Nihon Univ. School of Dentistry 1977, 19(2):93-102. | | | |
| | CH | | | | Raintree Essix & ARS Materials, Inc., Raintree Essix, Technical Magazine Table of contents and Essix Appliances, http://www.essix.com/magazine/default.html 08/13/97, 7 pgs. | | | |
| | CI | | | | Richmond et al., "The development of the PAR Index (Peer Assessment Rating): reliability and validity," EU Journal of Orthodontics 14, 1992, 15 pgs. | | | |
| <i>gzw</i> | CJ | | | | Schroeder et al., "Algorithms 1," The Visualization Toolkit chapter 6-9.9, 1996. | | | |

Examiner
Signature

John Wilson

Date
Considered

6/19/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.
PA 3199795 v1

Please type a plus sign (+) inside this box →



PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 4 of 4

Complete if Known

| | |
|------------------------|-------------------|
| Application Number | 10/047,078 |
| Filing Date | January 14, 2002 |
| First Named Inventor | CHISHTI, MUHAMMAD |
| Group Art Unit | Unassigned |
| Examiner Name | Unassigned |
| Attorney Docket Number | 018563-005110US |

FOREIGN PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
|-----------------------|--------------------------|-------------------------|---------------------|--------------------------------------|---|--|--|----------------|
| | | Office ³ | Number ⁴ | Kind Code ⁵ (if known) | | | | |
| <i>JW</i> | CK | | | | Shilliday, "Minimizing finishing problems with the mini-positioner," Am. J. Orthod. 1971, 59:596-599. | | | |
| <i>JW</i> | CL | | | | Warunek et al., "Clinical Use of Silicone Elastomer Appliances," JCO 10/1989, 694-700. | | | |
| <i>JW</i> | CM | | | | Warunek et al., "Physical and mechanical properties of elastomers in orthodontic positioners," Am. J. Orthod. Dentofac. Orthop. 1989, 95:388-400. | | | |
| <i>JW</i> | CN | | | | Wells, "Application of the positioner appliance in orthodontic treatment," Am. J. Orthodont. 1970, 58:351-366. | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

RECEIVED
MAR 21 2002
T-3700 MAIL ROOM

PA 3199795 v1

| | | | |
|-----------------------|--------------------|--------------------|---------|
| Examiner Signature | <i>John Wilson</i> | Date Considered | 6/19/03 |
|-----------------------|--------------------|--------------------|---------|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

PA 3199795 v1

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

Complete if Known

(use as many sheets as necessary)

Sheet

3

Q

T

Application Number

10/047,078

Filing Date

January 14, 2002

First Named Inventor

CHISHTI, MUHAMMAD

Group Art Unit

3732

Examiner Name

Unassigned

Attorney Docket Number

018563-005110US

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|---------------------|-----------------------|---|----------------|
| <i>JS</i> | AC | Doyle, "Digital Dentistry" <i>Computer Graphics World</i> (October 2000) pp. 50-52, 54. | |
| <i>JS</i> | AD | Redmond et al., "Clinical Implications of Digital Orthodontics" <i>Am. J. Orthodont. Dentofacial Orthopedics</i> (2000) 117(2):240-242. | |

PA 3214844 v1

| | | | |
|-----------------------|--------------------|--------------------|---------|
| Examiner Signature | <i>John Wilson</i> | Date Considered | 6/19/03 |
|-----------------------|--------------------|--------------------|---------|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

PA 3214844 v1

**COPY OF PAPERS
ORIGINALLY FILED**